

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Piedmont Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Brick and Tile Corporation of Lawrenceville  
Plants 3 and 4  
16024 Governor Harrison Parkway  
Lawrenceville, Virginia 23868  
Permit No. PRO-30872

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Brick and Tile Corporation of Lawrenceville has applied for the reissuance of its Title V Operating Permit for the 16024 Governor Harrison Parkway facility (Plants 3 and 4). The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: \_\_\_\_\_

Air Permit Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Deputy Director: \_\_\_\_\_ Date: \_\_\_\_\_

## **FACILITY INFORMATION**

### Permittee

Brick and Tile Corporation of Lawrenceville  
P.O. Box 45  
Lawrenceville, VA 23868

### Facility

Brick and Tile Corporation of Lawrenceville  
Plants 3 and 4  
16024 Governor Harrison Parkway  
Lawrenceville, VA 23868

Facility ID No. 51-025-0027

## **SOURCE DESCRIPTION**

NAICS Code: 327121– Manufacturer of face brick, pavers, and various brick shapes.

This facility consists of two operating brick plants, Plants 3 and 4. Brick manufacturing consists of mining, which is done at other areas in the locality, followed by grinding, blending of raw materials, extrusion, cutting or shaping, drying, firing, packaging and shipping of the final product.

The facility is a Title V major source of PM 10, CO, HF, and HCl. This source is located in an attainment area for all pollutants, and is not subject to PSD. The facility has a minor NSR construction permit dated August 16, 2004.

## **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted on 8/18/2005. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following equipment:

Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Brick Plant #3					
Plant #3 Truck Dumping and Crushing Equipment					
fugitive	Truck Dump Feeder Bin ES-3-TD	50 yd <sup>3</sup>			8/16/2004
	Feeder from ES-3-TD to ES-3-C1 ES-3-F1	36" wide			8/16/2004
	Feeder to crusher ES-3-F2	36" wide			8/16/2004
	Feeder fed by front end loader from crushed storage ES-3-F3	36" wide			8/16/2004
	Feeder fed by front end loader from crushed storage ES-3-F4	36" wide			8/16/2004
	Feeder fed by front end loader from crushed storage ES-3-F6	36" wide			8/16/2004
	Conveyor from ES-3-F1 to ES-3-CR1 w/ 1 drop point ES-3-C1	48" wide			8/16/2004
	McClanahan Roll Crusher ES-3-CR1	300 tons/hr	Full Enclosure	PM/PM <sub>10</sub>	8/16/2004 NSPS OOO
	Conveyor from ES-3-CR1 to ES-3-C2 w/1 drop point ES-3-C1A	36" wide			8/16/2004 NSPS OOO
	Conveyor from C1A to crushed material storage w/1 drop point ES-3-C2	36" wide			8/16/2004 NSPS OOO

Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Plant #3, Grinding Room Equipment					
EP-3-GR-BH	Conveyor from ES-3-F3, ES-3-F4 & ES-3-F6 to scalping screen w/1 drop point ?? ES-3-C3	30" wide	Mikro-Pulsaire Type 400S1-220 TRH Fabric filter dust collection system with a maximum air flow capacity of 33,600 ACFM (ES-3-GR)	PM/PM10	8/16/2004 NSPS OOO
	Simplicity Scalping Screen ES-3-SS1	5' x 14'			8/16/2004 NSPS OOO
	Conveyor from scalping and finishing screens to feeder 5 w/ 1 drop point ES-3-C4	30" wide			8/16/2004 NSPS OOO
	Feeder to Hammermill ES-3-F5	36" wide			8/16/2004 NSPS OOO
	J.C. Steele Hammermill ES-3-HM	275 tons/hr			8/16/2004 NSPS OOO
	Conveyor from hammermill to C7 w/1 drop point ES-3-C6	36" wide			8/16/2004 NSPS OOO
	Conveyor from C6 to C8 w/1 drop point ES-3-C7	30" wide			8/16/2004 NSPS OOO
	Conveyor from C7 to finishing screens w/1 drop point ES-3-C8	30" wide			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS1	5' x 8'			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS2	5' x 8'			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS3	5' x 8'			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS4	5' x 8'			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS5	5' x 8'			8/16/2004 NSPS OOO
	Leahy Model F1 Finishing Screen ES-3-FS6	5' x 8'			8/16/2004 NSPS OOO
	Conveyor from finishing and scalping screens to C10 w/ 1 drop point ES-3-C9	30" wide			8/16/2004 NSPS OOO
	Conveyor to C11 w/ 1 drop point ES-3-C10	30" wide			8/16/2004 NSPS OOO
Plant #3, Ground Material Storage (225 tons/hr capacity)					
Fugitive	Front End loader ES-3-FL	4.5 yd <sup>3</sup>			10/21/2002
	Conveyor from C10 to C12 or C13 w/2 drop points ES-3-C11	30" wide			10/21/2002 NSPS OOO
	Conveyor C11 to Brick Making Room w/1 drop point ES-3-C12	30" wide			10/21/2002 NSPS OOO
	Reversible conveyor to storage w/1 drop point ES-3-C13	30" wide			10/21/2002 NSPS OOO

Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Plant #3, Brick Making Room (58 tons/hr green brick)					
EP-3-MR-BH	Coating Station ES-3-CS1	1240 lbs-coatings/hr	Donaldson Company, Inc. fabric filter dust collection system w/maximum air flow of 17,000 ACFM	PM/PM10	10/21/2002
	Coating Station ES-3-CS2	1240 lbs-coatings/hr			10/21/2002
Plant #3, Brick Finishing Equipment					
EP-3-BD	Harrop Industries tunnel dryer with startup/backup heat burning natural gas and propane backup ES-3-BD	9 x 10 <sup>6</sup> btu/hr heat input 14.8 tons fired brick/hr			10/21/2002
EP-3-K	Harrop Industries tunnel kiln with multigas burner (natural gas with propane backup) ES-3-K	25 x 10 <sup>6</sup> btu/hr total heat input 14.8 tons fired brick/hr			10/21/2002
Plant #4 Truck Dumping and Crushing Equipment					
fugitive	Truck Dump Feeder Bin ES-4-TD	50 yds <sup>3</sup>			8/16/2004
	Feeder Bin for truck dumping ES-4-F1	5' x 22'			8/16/2004
	Feeder fed by front end loader from crushed storage ES-4-F2	400 ft <sup>3</sup>			8/16/2004
	Feeder fed by front end loader from crushed storage ES-4-F3	400 ft <sup>3</sup>			8/16/2004
	Conveyor w/1 drop point ES-4-C1	48 " wide			8/16/2004 NSPS OOO
N/A	McLanahan 24 x 48 shalemaster twin Roll Crusher ES-4-CR1	300 tons/hr	Full Enclosure N/A	PM/PM <sub>10</sub>	8/16/2004 NSPS OOO
fugitive	Conveyor w/1 drop point ES-4-C2	48" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C3	48" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C5	40" wide			8/16/2004 NSPS OOO
	Reversing conveyor ES-4-C6SR	40" wide			8/16/2004 NSPS OOO

Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Plant #4, Grinding Room Equipment					
EP-4-GR-BH	JC Steele Hammer mill ES-4-HM	275 tons/yr	Donaldson-Day 232RF10 Baghouse with a maximum air flow capacity of 26.730 ACFM ES-4-GR	PM/PM10	8/16/2004 NSPS OOO
	Midwestern Scalping Screen ES-4-SS1	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Midwestern Finishing Screen ES-4-FS1	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Midwestern Finishing Screen ES-4-FS2	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Midwestern Finishing Screen ES-4-FS3	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Midwestern Finishing Screen ES-4-FS4	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Midwestern Finishing Screen ES-4-FS5	5' x 7' w/multiple screen decks			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C7	32" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C8	28" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C9	40" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C11	36" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C12	40" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C13	40" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C15	32" wide			8/16/2004 NSPS OOO
	Reversing Conveyor w/1 drop point ES-4-C16AR	32" wide			8/16/2004 NSPS OOO

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Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Plant #4, Ground Material Storage					
Fugitive	Reclaimer Chain Conveyor ES-4-RC	85 tons material/hr 225 tons/hr			8/16/2004
	Conveyor w/1 drop point ES-4-C16B	32" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C16C	32" wide			8/16/2004 NSPS OOO
	Reversing conveyor w/ 2 drop points ES-4-C18SR	32" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-18W	32" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C18E	32" wide			8/16/2004 NSPS OOO
	Conveyor w/1 drop point ES-4-C19 (head section)	32" wide			8/16/2004
Plant #4, Brick Making Room					
EP-4-MR-BH	Coating Station w/1 pickup point ES-4-CS1	58 tons green brick/hr	Donaldson-Day 156F10 Baghouse with a maximum air flow capacity of 14,138 ACFM. ES-4-MR	PM/PM10	8/16/2004
	Coating Station w/1 pickup point ES-4-CS2	58 tons green brick/hr			8/16/2004
	Coating Station w/1 pickup point ES-4-CS3	58 tons green brick/hr			8/16/2004
	Coating Station w/1 pickup point ES-4-CS4	58 tons green brick/hr			8/16/2004
	Coating Station w/1 pickup point ES-4-CS5	58 tons green brick/hr			8/16/2004
	Additive Feeder w/3 pickup points ES-4-AF1	58 tons green brick/hr			8/16/2004
	Additive Feeder w/3 pickup points ES-4-AF2	58 tons green brick/hr			8/16/2004
	Additive Feeder w/3 pickup points ES-4-AF3	58 tons green brick/hr			8/16/2004
	Additive Feeder w/3 pickup points ES-4-AF4	58 tons green brick/hr			8/16/2004
	Conveyor ES-4-C19 (tail section)	32" wide			8/16/2004
	Conveyor ES-4-C20	32" wide			8/16/2004
	Conveyor ES-4-C21	32" wide			8/16/2004
	Coating system with 30 pickup points ES-4-CS	58 tons green brick/hr			8/16/2004
	Sand blast booth with 2 pickup points ES-4-SB	58 tons green brick/hr			8/16/2004
EP-4-SS	Bag filling station with 1 pickup point ES-4-BFS	58 tons green brick/hr			8/16/2004
	Sand Silo ES-4-SS	1000 ft³	Bin vent filter	PM/PM10	8/16/2004

Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description	Pollutant Controlled	Applicable Permit Date
	Emission Unit ID		PCD ID		
Plant #4, Brick Finishing Equipment					
EP-4-BD1	Ceric, Inc Twin Track Predryer and Dryer equipped with a supplemental heater and using natural gas and propane backup ES-4-BD	10 x 10 <sup>6</sup> btu/hr heat input 14.8 tons fired brick/hr			8/16/2004
EP-4-BD2					
EP-4-SCRB	Ceric, Inc. Standard Sand Seal tunnel Kiln using natural gas and propane backup ES-4-K	43.4 x 10 <sup>6</sup> btu/hr total heat input 14.8 tons fired brick/hr	Hellmich HKD-R dry hydrated lime injection baghouse system w/ maximum air flow of 40,000 ACFM and maximum lime flow of 132 lbs/hr ES-4-SCRB	SO <sub>2</sub> , HCl, HF, PM, PM <sub>10</sub>	8/16/2004
EP-4-LS	Lime Storage silo ES-4-LS	36 tons lime transported/hr	Bin vent filter	PM/PM <sub>10</sub>	8/16/2004

## EMISSIONS INVENTORY

A copy of the 2003 annual emission update may be found in Attachment 1. Emissions are summarized in the following table.

Pollutant Emission in Tons/Year						
VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>	HCL	HF
3.02	84.33	39.76	93.92	25.03	8.93	40.88

## EMISSION UNIT APPLICABLE REQUIREMENTS – Plant #3

### Limitations

The following limitations are from the 8/16/2004 NSR permit:

- **Emission Controls** – Particulate emissions from the Plant #3 grinding plant shall be controlled by building enclosure with a fabric filter dust collection system with a maximum air flow capacity of 33,600 ACFM. The control device shall be provided with adequate access for inspection and shall be in operation when the grinding plant is operating.  
(9 VAC 5-50-260, Condition 3 of 8/16/2004 NSR permit)



- **Emission Controls** – Particulate emissions from the Plant #3 texturing and coating equipment shall be controlled by a fabric filter dust collection system with a maximum air flow capacity of 18,029 ACFM. The control device shall be provided with adequate access for inspection and shall be in operation when the texturing and coating equipment is operating.  
(9 VAC 5-50-260, Condition 4 of 8/16/2004 NSR permit)
- **Control Efficiency** - The fabric filter dust collection system controlling the Plant #3 texturing and coating equipment shall maintain a control efficiency for particulate of no less than 99.0% percent, on a mass basis.  
(9 VAC 5-50-260, Condition 5 of 8/16/2004 NSR permit)
- **Fugitive Emission Controls** – Fugitive particulate emissions from the receipt of raw materials, primary crushing, and raw material storage for Plant #3 shall be controlled by respective building enclosures. Fugitive emissions from transferring raw materials between buildings shall be controlled by covered conveyors.  
(9 VAC 5-50-260, Condition 6 of 8/16/2004 NSR permit)
- **Production** - The production of fired brick from Plant #3 shall not exceed 110,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.  
(9 VAC 5-80-1180, Condition 21 of 8/16/2004 NSR permit)
- **Fuel** - The approved fuels for the Plant #3 tunnel dryer and tunnel kiln are liquefied petroleum gas (LPG) and natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-1100, Condition 22 of 8/16/2004 NSR permit)
- **Emission Limits** - Emissions from the operation of the Plant #3 tunnel kiln shall not exceed the limits specified below:

Particulate Matter/PM-10	21.3 lbs/hr	79.2 tons/yr
Sulfur Dioxide	9.9 lbs/hr	36.9 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	5.2 lbs/hr	19.3 tons/yr
Carbon Monoxide	17.8 lbs/hr	66.0 tons/yr
Volatile Organic Compounds	0.4 lbs/hr	1.3 tons/yr

Particulate emission limitations for this unit are based on information from both the filterable and condensable portions of stack test data.

(9 VAC 5-50-260, 9 VAC 5-60-320, Condition 25 of 8/16/2004 NSR permit)

- **Emission Limits** - Emissions from the operation of the Plant #3 tunnel dryer shall not exceed the limits specified below:

Particulate Matter/PM-10	2.8 lbs/hr	10.3 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> )	1.5 lbs/hr	5.4 tons/yr
Carbon Monoxide	4.6 lbs/hr	17.1 tons/yr
Volatile Organic Compounds	0.5 lbs/hr	1.7 tons/yr
(9 VAC 5-50-260, Condition 26 of 8/16/2004 NSR permit)		

- **Emission Limits** - Emissions from the Plant #3 fabric filter dust collection system controlling the grinding room shall not exceed the limits specified below:

Particulate Matter/PM-10	0.02 grains/dscft	5.8 lbs/hr	8.6 tons/yr
(9 VAC 5-50-260, 9 VAC 5-50-410, Condition 27 of the 8/16/2004 NSR permit, 40 CFR 60.672 (a)(1))			

- **Emission Limits** - Emissions from the Plant #3 fabric filter dust collection system controlling the texturing and coating equipment shall not exceed the limits specified below:

Particulate Matter/PM-10	0.01 grains/dscft	1.6 lbs/hr	1.6 tons/yr
(9 VAC 5-50-260, Condition 28 of 8/16/2004 NSR permit)			

- **Plant #3 Combined Emission Limits** - Total emissions from the Brick Plant #3 shall not exceed the limits specified below:

Particulate Matter/PM-10	31.4 lbs/hr	99.7 tons/yr
Sulfur Dioxide	9.9 lbs/hr	36.9 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> )	6.6 lbs/hr	24.6 tons/yr
Carbon Monoxide	22.4 lbs/hr	83.1 tons/yr
Volatile Organic Compounds	0.8 lbs/hr	3.0 tons/yr
(9 VAC 5-50-260, VAC 5-60-320, Condition 29 of 8/16/2004 NSR permit)		

- **Visible Emission Limit** - Visible emissions from the fabric filter dust collection system controlling the Plant #3 texturing and coating equipment and the Plant #3 tunnel kiln exhaust stack shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-50-260, Condition 37 of the 8/16/2004 NSR permit)
- **Visible Emission Limit** – Visible emissions from the exhaust of the baghouse controlling the Plant #3 grinding room equipment (ES-3-GR) shall not exceed 7 percent opacity as determined by EPA Reference Method 9 (reference 40 CFR 60, Appendix A.)  
(9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-50-410, Condition 38 of the 8/16/2004 NSR permit)

#### 40 CFR 60 Subpart OOO

The following limitations originate from 40 CFR 60 Subpart OOO and are not specifically listed in the 8/16/2004 NSR permit:

Emission unit ID #	Emission unit description	Limitation	Citation
ES-3-CR1	Roll Crusher	15% opacity	40 CFR 60.672(c)
ES-3-C1A	Conveyor	10%	40 CFR 60.672(b)
ES-3-C2	Conveyor	10%	40 CFR 60.672(b)
ES-3-SS1	Scalping screen	7% and 0.022 gr/dscft	40 CFR 60.672(a)
ES-3-FS1 thru FS6	Finishing screens	<i>These limits are covered by the grinding room baghouse limits for ES-3-GR.</i>	40 CFR 60.672(a)
ES-3-C3 thru C10	Conveyor		40 CFR 60.672(a)
ES-3-HM	Hammer mill		40 CFR 60.672(a)
ES-3-C11	Conveyor	10% opacity	40 CFR 60.672(b)
ES-3-C12	Conveyor	10%	40 CFR 60.672(b)
ES-3-C13	Conveyor	10%	40 CFR 60.672(b)

#### 40 CFR Subpart JJJJJ

The following limitation originates from 40 CFR 63 Subpart JJJJJ. The Plant #3 at this facility would qualify as an existing unit since construction commenced before July 22, 2002 (40 CFR 63.8390(h)). The facility may operate Plant #3 as a small tunnel kiln, meaning that the capacity will be less than 10 tons/hour, defined in 40 CFR 63.8390(b). While the actual hourly capacity of this unit is larger than 10 tons/hr, the standard allows the facility to take a federally enforceable limitation on annual production equivalent to 10 tph of fired product. This limitation would ensure that Plant #3 is not subject to 40 CFR 63 Subpart JJJJJ. See 40 CFR 63.8390(d) for this allowance. However, at this time, the facility is undecided as to how it will apply Subpart JJJJJ to Kiln #3. If economics dictate otherwise, they may decide to install control equipment. Plant #3 must comply with the NESHAP no later than May 16, 2006. See 40 CFR 63.8395(b) for this date. Since it is currently undecided how Plant #3 will meet the NESHAP limitations, a general condition will be added to the TV permit requiring that Plant #3 be in compliance with all applicable portions of the MACT standard by the compliance date.

- Commencing May 16, 2006, Plant #3 shall operate in compliance with all applicable standards and requirements listed in 40 CFR 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing.  
(9 VAC 5-60-100, 40 CFR 63.8390(b), 40 CFR 63.8390(d), 40 CFR 63.8395(b))

#### **Monitoring and Record Keeping**

The following conditions originate in the 8/16/2004 NSR permit:

- Monitoring Devices** - The fabric filter dust collection system controlling the Plant #3 texturing and coating equipment shall be equipped with devices to continuously measure the differential pressure drop across the fabric filter. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the

manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating. (9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, Condition 16 of 8/16/2004 NSR permit)

- **Monitoring Device Observation** - The devices used to continuously measure the differential pressure drop across the fabric filter controlling the Plant #3 texturing and coating equipment shall be observed by the permittee with a frequency of not less than once per day while the texturing and coating equipment is operating. The permittee shall keep a log of the observations. (9 VAC 5-50-50 H, Condition 17 of 8/16/2004 NSR permit)

#### 40 CFR 63 Subpart JJJJJ

Monitoring and Record Keeping: Since the method of compliance with the MACT for Plant #3 is currently unknown, the monitoring and record keeping requirements for Plant #3 are undetermined and therefore will not be specified in the TV permit.

#### **Testing**

The following requirements originate in the 8/16/2004 NSR permit:

- **Stack Test** - Performance tests shall be conducted for hydrogen fluoride from Plant #3 tunnel kiln to determine a conservative method for estimating hydrogen fluoride (HF) emissions. The tests shall be performed and reported within three years of the initial issuance date of the September 6, 2002 permit. If a new kiln is build adjacent to this brick plant, hydrogen fluoride test data from the new kiln may be used in lieu of testing Plant #3 tunnel kiln as long as adequate mass balance data for the raw material as described in Condition 60 (of the 8/16/2004 NSR permit) also exists. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 60 days prior to testing. The test protocol shall include a discussion of methodology for comparing mass balance data, gathered in accordance with Condition 60 (of the 8/16/2004 NSR permit), to testing data. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-50-30, 9 VAC 5-80-1200, Condition 48 of the 8/16/2004 NSR permit)

A table of test methods has been included in the permit if testing is performed. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Reporting**

Reporting requirements from the 8/16/2004 NSR permit are listed together with the initial and continuing compliance stack test conditions above.

#### 40 CFR 63 Subpart JJJJJ

Reporting: Since the method of compliance with the MACT for Plant #3 is currently unknown, the reporting requirements for Plant #3 are undetermined and therefore will not be specified in the TV permit. However,

a general applicability by reference condition (III.A.16) is in the Title V Permit which states that it shall operate in compliance with all applicable requirements.

### **Obsolete Conditions**

Brick and Tile has demonstrated that the following conditions to monitor Sulfur Dioxide and Hydrogen Fluoride concentration in the raw materials are no longer necessary because the SO<sub>2</sub> and HF concentrations have leveled out. Furthermore, the MACT JJJJJ will require testing every five years which will require knowing these concentrations in the raw material.

- **Sulfur Dioxide Mass Balance Testing** - Within 90 days of the issuance date of this permit, September 6, 2002, and every 90 days thereafter, the permittee shall sample raw material for sulfur content. After performing four such tests, the permittee shall submit to the Director, Piedmont Region a summary of all test data and any conclusions concerning variability of sulfur content in the raw material drawn from the data. If the data shows little variability of sulfur content in the raw material, and DEQ concurs, the permittee may reduce the frequency of monitoring the sulfur content of the raw material to the initial use of material from a new or untested stockpile. When material from a new or untested stockpile is used in the brick making operation, the permittee shall sample within 30 days of initial use of the material.  
(9 VAC 5-50-30 G, Condition 59 of the 8/16/2004 NSR permit)
- **Hydrogen Fluoride Mass Balance Testing** - Commencing within 30 days of the initial issuance date of this permit, September 6, 2002, and every 30 days thereafter, the permittee shall sample dried brick and fired brick for fluoride content. The permittee shall gather enough information during each test to perform a mass balance around the Plant #3 tunnel kiln. Monthly testing shall continue until the permittee performs a stack test at this facility for hydrogen fluoride emissions from the tunnel kiln as required in Condition 48 of the 8/16/2004 NSR permit. Data from the monthly testing shall be included in the hydrogen fluoride emissions testing report, and a comparison shall be made between hydrogen fluoride emission rates predicted via mass balance techniques and tested hydrogen fluoride emission rates. This information shall be included in the hydrogen fluoride emissions testing report and shall also be discussed in the protocol for any such test. Based on the results of these tests, this permit may be reopened to include updated hydrogen fluoride parametric monitoring limitations.  
(9 VAC 5-50-30 G, Condition 60 of the 8/16/2004 NSR permit)

## EMISSION UNIT APPLICABLE REQUIREMENTS – Plant #4

### Limitations

The following limitations are from the 8/16/2004 NSR permit:

- **Emission Controls** – The Plant #4 tunnel kiln (ES-4-K) shall be equipped with a Hellmich HKD-R dry hydrated lime injection baghouse system (ES-4-SCRB) with a maximum air flow capacity of 40,000 ACFM and a maximum lime flow rate of 132 lbs/hr. The dry hydrated lime injection baghouse system (ES-4-SCRB) shall be provided with adequate access for inspection and shall be in operation when the Plant #4 tunnel kiln (ES-4-K) is operating.  
(9 VAC 5-50-260, Condition 7 of 8/16/2004 NSR permit)
- **Control Efficiency** – The dry hydrated lime injection baghouse system (ES-4-SCRB) shall demonstrate and maintain the following control efficiencies for the following pollutants:

Sulfur Dioxide (SO <sub>2</sub> )	30.0%
Hydrogen Fluoride (HF)	90.0%

  
(9 VAC 5-50-260, Condition 8 of 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ Table 1)
- **Emission Controls** – Particulate emissions from the Plant #4 grinding room equipment, as listed in Condition 2 of the 8/16/2004 NSR permit, shall be controlled by a Donaldson-Day 232RF10 baghouse (ES-4-GR) with a maximum air flow capacity of 26,730 ACFM. The baghouse (ES-4-GR) shall be provided with adequate access for inspection and shall be in operation when the grinding room is operating.  
(9 VAC 5-50-260, Condition 9 of 8/16/2004 NSR permit)
- **Control Efficiency** - The baghouse controlling particulate emissions from the Plant #4 grinding room equipment (ES-4-GR) shall maintain and demonstrate a control efficiency for particulate of no less than 99.0 percent, on a mass basis.  
(9 VAC 5-50-260, Condition 10 of 8/16/2004 NSR permit)
- **Emission Controls** – Particulate emissions from the Plant #4 brick making room equipment, as listed in Condition 2 above, shall be controlled during dry coating operations by a Donaldson-Day 156F10 baghouse (ES-4-MR) with a maximum air flow capacity of 14,138 ACFM. The baghouse (ES-4-MR) shall be provided with adequate access for inspection and shall be in operation when the brick making room equipment is running dry coating operations.  
(9 VAC 5-50-260, Condition 11 of 8/16/2004 NSR permit)
- **Control Efficiency** - The baghouse controlling particulate emissions from the Plant #4 brick making room equipment (ES-4-MR) shall maintain and demonstrate a control efficiency for particulate of no less than 99.0 percent, on a mass basis.  
(9 VAC 5-50-260, Condition 12 of 8/16/2004 NSR permit)
- **Emission Controls** – Particulate emissions from the Plant #4 lime silo (ES-4-LS) and the Plant #4 sand silo (ES-4-SS) shall each be controlled by a bin vent filter. Each bin vent filter shall be provided with adequate access for inspection and shall be in operation when the respective silo is operating.  
(9 VAC 5-50-260, Condition 13 of 8/16/2004 NSR permit)

- **Emission Controls** – Particulate emissions from Plant #4 twin roll crusher (ES-4-CR1) shall be controlled by full enclosure. The twin roll crusher and enclosure shall be provided with adequate access for inspection. The twin roll crusher shall not be operated unless the full enclosure is secured with all doors and windows closed.  
(9 VAC 5-50-260, Condition 14 of 8/16/2004 NSR permit)
- **Production** - The production of fired brick from Plant #4 shall not exceed 129,648 tons per year, calculated monthly as the sum of each consecutive 12 month period.  
(9 VAC 5-80-1180, Condition 23 of 8/16/2004 NSR permit)
- **Fuel** - The approved fuels for the Plant #4 tunnel kiln (ES-4-K) and the Plant #4 predryer and dryer (ES-4-BD) are natural gas and propane. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-1100, Condition 24 of 8/16/2004 NSR permit)

- **Emission Limits** – Fugitive emissions from the operation of the Plant #4 truck dumping and crushing equipment, as listed in Condition 2 of the 8/16/2004 NSR permit, shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	3.8 lbs/hr	16.6 tons/yr
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Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in condition numbers 14, 23, 40, and 41 of the 8/16/2004 NSR permit.  
(9 VAC 5-50-260, 9 VAC 5-50-410, Condition 30 of the 10/21/02 NSR permit)

- **Emission Limits** - Emissions from the exhaust of the Torit DFO 3-24 baghouse controlling the Plant #4 grinding room equipment (ES-4-GR) shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	0.022 grains/dscf	5.0 lbs/hr	22.1 tons/yr
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(9 VAC 5-50-260, 9 VAC 5-50-410, Condition 31 of the 8/16/2004 NSR permit, 40 CFR 60.672(a)(1))

- **Emission Limits** – Fugitive emissions from the operation of the ground material storage equipment, as listed in condition 2 of the 8/16/2004 permit, shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	2.7 lbs/hr	11.8 tons/yr
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Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in condition numbers 23 and 40 of the 8/16/2004 NSR permit  
(9 VAC 5-50-260, 9 VAC 5-50-410, Condition 32 of the 8/16/2004 NSR permit)

- **Emission Limits** - Emissions from the exhaust of the Donaldson-Day 156F10 baghouse controlling the Plant #4 brick making room equipment (ES-4-MR) shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	0.01 grains/dscf	1.2 lbs/hr	5.3 tons/yr
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(9 VAC 5-50-260, Condition 33 of the 8/16/2004 NSR permit)

- **Emission Limits** - Emissions from the exhaust of the Plant #4 predryer and dryer, ES-4-BD, shall not

exceed the limits specified below:

Particulate Matter	2.8 lbs/hr	12.1 tons/yr
PM <sub>10</sub>	2.8 lbs/hr	12.1 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	1.5 lbs/hr	6.4 tons/yr
Carbon Monoxide (CO)	4.6 lbs/hr	20.1 tons/yr
Volatile Organic Compounds (9 VAC 5-50-260, Condition 34 of the 8/16/2004 NSR permit)	0.4 lbs/hr	1.9 tons/yr

- **Emission Limits** - Emissions from the exhaust of the Plant #4 dry hydrated lime injection baghouse system (ES-4-SCRB) controlling the Plant #4 tunnel kiln (ES-4-K) shall not exceed the limits specified below:

Particulate Matter	0.12 lbs/ton fired brick	1.8 lbs/hr	7.8 tons/yr
PM <sub>10</sub>	0.12 lbs/ton fired brick	1.8 lbs/hr	7.8 tons/yr
Sulfur Dioxide (SO <sub>2</sub> )		6.9 lbs/hr	30.4 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )		5.2 lbs/hr	22.7 tons/yr
Carbon Monoxide (CO)		17.8 lbs/hr	77.8 tons/yr
Volatile Organic Compounds		0.4 lbs/hr	1.6 tons/yr
Total Fluorides, excluding HF		0.7 lbs/hr	3.1 tons/yr
Hydrogen Fluoride (HF)		1.2 lbs/hr	5.1 tons/yr
Hydrogen Chloride (HCl)	0.056 lbs/ton fired brick	0.83 lbs/hr	3.6 tons/yr

Particulate emission limitations for this unit are based on information from only the filterable portion of stack test data.  
(9 VAC 5-50-260, 9 VAC 5-60-100, Condition 35 of the 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ Table 1)

- **Plant #4 Combined Emission Limits** - Total emissions from Plant #4 shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	17.3 lbs/hr	75.7 tons/yr
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Sulfur Dioxide	6.9 lbs/hr	30.4 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	6.6 lbs/hr	29.0 tons/yr
Carbon Monoxide	22.3 lbs/hr	97.9 tons/yr
Volatile Organic Compounds	0.8 lbs/hr	3.5 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in the various conditions of this permit.

(9 VAC 5-50-260, Condition 36 of the 8/16/2004 NSR permit)

- **Visible Emission Limit** - Visible emissions from the exhaust of the baghouse controlling the Plant #4 grinding room equipment (ES-4-GR) shall not exceed 7 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-50-260, and 9 VAC 5-50-410, Condition 39 of the 8/16/2004 NSR permit, 40 CFR 50.672(a)(2))
- **Visible Emission Limit** - Visible emissions from the following equipment shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Emission Unit ID #	Equipment Description	Rated Capacity
ES-4-C1	Conveyor with 1 drop point	48" wide
ES-4-C2	Conveyor with 1 drop point	48" wide
ES-4-C3	Conveyor with 1 drop point	48" wide
ES-4-C5	Conveyor with 1 drop point	40" wide
ES-4-C6SR	Reversing conveyor with 1 drop point	40" wide
ES-4-C16B	Conveyor with 1 drop point	32" wide
ES-4-C16C	Conveyor with 1 drop point	32" wide
ES-4-C19	Conveyor with 1 drop point	32" wide
ES-4-C18SR	Reversing conveyor with 1 drop point	32" wide
ES-4-C18W	Conveyor with 1 drop point	32" wide
ES-4-C18E	Conveyor with 1 drop point	32" wide

(9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-50-410, Condition 40 of the 8/16/2004 NSR permit, 40 CFR 672(b))

- **Visible Emission Limit** - Visible emissions from the Plant #4 fully enclosed roll crusher, ES-4-CR1, shall not exceed 15 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-50-410, Condition 41 of the 8/16/2004 NSR permit, 40 CFR 60.672(c))
- **Visible Emission Limit** - Visible emissions from the Plant #4 lime storage silo ES-4-LS and the Plant #4 sand storage silo ES-4-SS shall each not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-50-80, 9 VAC 5-50-260, Condition 42 of the 8/16/2004 NSR permit)

- **Visible Emission Limit** - Visible emissions from the exhaust of the baghouse controlling the Plant #4 brick making room equipment, ES-4-MR, shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-50-260, Condition 43 of the 8/16/2004 NSR permit)
- **Visible Emission Limit** – There shall be no visible emissions from the exhaust of the dry hydrated lime injection baghouse controlling the Plant #4 tunnel kiln (ES-4-K) as determined by EPA Method 22 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-50-260, Condition 44 of the 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ, Table 2)

#### 40 CFR Subpart JJJJJ

The following limitations originate from 40 CFR 63 Subpart JJJJJ. The Plant #4 at this facility qualifies as a new, large tunnel kiln under this standard.

- Plant #4 kiln, ES-4-K, must meet the following emission limitations:

Limitations	Citation
0.057 lbs HF/ton of fired product or reduction of HF emissions by 90%	40 CFR 63 Subpart JJJJJ, Table 1, #2.a. 40 CFR 63 Subpart JJJJJ, Table 4, #2.a.
0.056 lbs HCl/ton of fired product or reduction of HCl emissions by 85%	40 CFR 63 Subpart JJJJJ, Table 1, #2.b. 40 CFR 63 Subpart JJJJJ, Table 4, #2.b.
0.12 lb PM/ton fired product	40 CFR 63 Subpart JJJJJ, Table 1, #2.c. 40 CFR 63 Subpart JJJJJ, Table 4, #2.c.

*These limitations are also in the 8/16/2004 NSR permit.*

- Plant #4 kiln, ES-4-K, and associated scrubber, ES-4-SCRB, must meet the following operating limitations:

Limitations	Citation
Maintain no visible emissions from the baghouse stack ES-4-SCRB	40 CFR 63 Subpart JJJJJ, Table 2, #2.a. 40 CFR 63 Subpart JJJJJ, Table 5, #2.i.
Maintain free-flowing lime in the feed hopper or silo and to the scrubber at all times	40 CFR 63 Subpart JJJJJ, Table 2, #2.b. 40 CFR 63 Subpart JJJJJ, Table 5, #2.ii
Maintain the feeder setting at or above the level established during the performance test for scrubber ES-4-SCRB	40 CFR 63 Subpart JJJJJ, Table 2, #2.c. 40 CFR 63.Subpart JJJJJ, Table 5, #2, ii

*These requirements are also in the 8/16/2004 NSR permit.*

- Must be in compliance with Subpart JJJJJ limitations at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-60-100, 40 CFR 63.8420(a))
- Must develop and implement a written startup, shutdown, and malfunction plan (SSMP).

(9 VAC 5-60-100, 40 CFR 63.8420(c))

- Must prepare and implement a written operations, maintenance, and monitoring (OM&M) plan.  
(9 VAC 5-60-100, 40 CFR 63.8420(d))
  - OM&M plan must be available for inspections upon request. Must contain the following:
    - ⇒ Each process and air pollution control device (APCD) to be monitored;
    - ⇒ The type of monitoring device that will be used; and
    - ⇒ Operating parameters to be monitored.
    - ⇒ Monitoring schedule specifying the frequency that the parameter values will be determined and recorded.
    - ⇒ Limits for each parameter that represent continuous compliance with the emission limitations. Limits must be based on values of the monitored parameters recorded during performance tests.
    - ⇒ Procedures for the proper operation and routine and long-term maintenance of the APCD, including maintenance and inspection schedules that are consistent with the manufacturer's recommendations.
    - ⇒ Performance and equipment specifications for the sample interface, the pollutant concentration, or parametric signal analyzer, and the data collection and reduction system.
    - ⇒ Continuous monitoring system performance evaluation procedures and acceptance criteria.
    - ⇒ Procedures for the proper operation and maintenance of monitoring equipment
    - ⇒ Continuous monitoring system data quality assurance procedures.
    - ⇒ Continuous monitoring system record keeping and reporting procedures.
    - ⇒ Procedures for responding to operating parameter deviations, including:
      - Procedures for determining the cause of the operating parameter deviation.
      - Actions for correcting the deviation and returning the operating parameters to the allowable limits
      - Procedures for recording the times that the deviation began and ended and corrective actions were initiated and completed.
    - ⇒ Procedures for keeping records to document compliance.
- (9 VAC 5-60-100, 40 CFR 63.63.8425(b))

It should be noted that 40 CFR 63.8420(e) allows the facility to bypass the Hellmich scrubber (ES-4-SCRB) for routine maintenance if certain conditions are met. One condition, 40 CFR 63.8420(e)(1) states that the request for the routine control device maintenance exemption must be provided to the permitting authority along with other information. 40 CFR 63.8480(f) states that the request must be submitted no later than 30 days before the compliance date of the unit. The compliance date of the new kiln (ES-4-K) was the date upon which it started up, and this date has been reached. Therefore, the provisions within the MACT for the routine maintenance exemption will not be included in the TV permit. The standards of 9 VAC 5-20-180 shall apply.

Additionally, the TV permit shall contain the Table 7 of 40 CFR 63 Subpart JJJJJ to delineate which parts of the general provisions of this chapter apply to Plant #4.

### **Monitoring and Record Keeping**

The following conditions originate in the 8/16/2004 NSR permit:

- **Monitoring Devices** - The baghouse controlling the Plant #4 brick making room (ES-4-MR) shall be

equipped with devices to continuously measure the differential pressure drop across the baghouse. The baghouse controlling the Plant #4 grinding room (ES-4-GR) shall also be equipped with devices to continuously measure the differential pressure drop across the baghouse. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when each control device is operating.

(9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, Condition 18 of 8/16/2004 NSR permit)

- **Monitoring Device Observation** - The monitoring devices used to continuously measure the differential pressure across the baghouse controlling the Plant #4 brick making room (ES-4-MR) and the baghouse controlling the Plant #4 grinding room (ES-4-GR) shall each be observed by the permittee with a frequency of not less than once per day that the equipment being controlled operates. The permittee shall keep logs of the observations from each of the devices used to continuously measure the differential pressure across the baghouse controlling the brick making room (ES-4-MR) and the baghouse controlling the grinding room (ES-4-GR).  
(9 VAC 5-50-50 H, Condition 19 of 8/16/2004 NSR permit)
- **Monitoring Observations** – The permittee shall create and maintain the following observations, records, and logs:
  - a. The permittee shall observe the exhaust of the dry hydrated lime injection baghouse (ES-4-SCRB) with a frequency of not less than once per operating day while the kiln is under normal operating conditions. The stack must be observed at least 15 minutes and in accordance with Method 22 of Appendix A, 40 CFR 60. If no visible emissions are observed in 30 consecutive daily Method 22 tests, the permittee may decrease the frequency of observations from daily to weekly. If any visible emissions are observed during weekly tests, the permittee must promptly initiate and complete corrective actions. The frequency of observation shall revert back to daily until the permittee can demonstrate that no visible emissions are observed in 30 consecutive daily tests, at which point in time the frequency of observations may be reduced to weekly. The permittee shall keep logs of times, dates, and results of daily examinations.
  - b. The permittee shall continuously monitor the flow of lime to the auger of the dry hydrated lime injection baghouse (ES-4-SCRB). The monitoring device shall be equipped with an alarm that shall sound whenever lime is not free flowing. The output from the monitor of the flow of lime to the auger shall be continuously recorded.
  - c. Once per shift, the feeder setting of the lime feed system shall be recorded. The feeder setting shall be maintained at or above the level established during the most recent performance test showing compliance with this permit. The permittee shall keep logs of the once-per-shift feeder setting observations.

(9 VAC 5-50-50 H, 9 VAC 5-60-100, Condition 20 of 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ, Table 5, #2, 40 CFR 63.8470(g))

40 CFR 63 Subpart JJJJJ

The following requirements for monitoring and record keeping are from the MACT:

- The permittee shall install, operate, and maintain each continuous monitoring system (CMS) according to the OM&M plan and shall meet the following requirements:
  - ⇒ Conduct a performance evaluation of each CMS according to the OM&M plan;
  - ⇒ The CMS must complete a minimum of one cycle of operation for each successive 15 minute period. To have a valid hour, the permittee must have at least 3 of 4 equally spaced data values or at least 75 percent if more than 4 data values per hour are collected, not including startup, shutdown, malfunction, out of control periods, or periods of routine control device maintenance).
  - ⇒ The permittee shall determine and record the 3 hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3 hour average period, the permittee must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, out of control periods, or periods of routine control device maintenance).
  - ⇒ The permittee shall record the results of each inspection, calibration and validation check.
  - ⇒ At all times, the permittee must maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.  
(9 VAC 5-60-100, 40 CFR 63.8450(a))
- For the lime feed rate measurement device, the permittee shall meet the following requirements:
  - ⇒ Locate the measurement device in a position that provides a representative feed rate measurement;
  - ⇒ At least semiannually, conduct a calibration check.  
(9 VAC 5-60-100, 40 CFR 63.8450(f))
- Except for periods of monitor malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall monitor continuously or collect data at all required intervals at all times that the Plant #4 kiln, ES-4-K, is operating. This includes startup, shutdown, malfunction, and routine control device maintenance.  
(9 VAC 5-60-100, 40 CFR 63.8465(b))
- During periods of startup, shutdown, and malfunction, Plant #4 must be operated according to the Startup, Shutdown, and Malfunction Plan (SSMP).  
(9 VAC 5-60-100, 40 CFR 63.8470(d))
- Deviations that occur during a period of startup, shutdown, or malfunction are not violations if the permittee demonstrates to the Director, Piedmont Regional Office's satisfaction that the facility was operating according to an SSMP and an OM&M plan. The Director, Piedmont Region shall determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations.  
(9 VAC 5-60-100, 40 CFR 63.8470(e))
- The permittee shall monitor the visible emissions from the stack of the Hellmich scrubber ES-4-SCRB, as required below:
  - ⇒ The permittee shall perform daily visible emission observations of the ES-4-SCRB stack according to the procedures of Method 22 of 40 CFR 60, Appendix A. The observations must take place while the unit is operating under normal conditions. The duration of each Method 22 test shall be at least 15 minutes.
  - ⇒ If visible emissions are observed during any daily test conducted using Method 22 of 40 CFR 60, Appendix A, the permittee must promptly initiate and complete corrective actions according to your OM&M plan. If no visible emissions are observed in 30 consecutive daily Method 22 tests for the

ES-4-SCRB stack, the permittee may decrease the frequency of Method 22 testing from daily to weekly for that kiln stack. If visible emissions are observed during any weekly test, the permittee must promptly initiate and complete corrective actions according to the OM&M plan, resume Method 22 tests of ES-4-SCRB on a daily basis, and maintain that schedule until no visible emissions are observed in 30 consecutive daily tests, at which time the permittee may again decrease the frequency of Method 22 testing to weekly.

- ⇒ If visible emissions are observed during any test, the permittee must report these deviations.  
(9 VAC 5-60-100, 40 CFR 63.8470(g), 40 CFR 63 Subpart JJJJJ, Table 5, #2.i)

*This is also required by the 8/16/2004 NSR permit.*

- The permittee shall verify that lime is free flowing to the scrubber ES-4-SCRB via a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system. The output of this system shall be recorded, and if lime is found to not be free flowing, promptly initiate and complete the corrective actions in the OM&M plan.  
(9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ, Table 5, #2.ii)  
*This is also required by the 8/16/2004 NSR permit.*
- The permittee shall record the feeder setting once during each shift of operation to verify that the feeder setting is being maintained at or above the level established during the performance test.  
(9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ, Table 5, #2.ii)  
*This is also required by the 8/16/2004 NSR permit.*
- The permittee shall keep the following records for Plant #4:
  - ⇒ A copy of each notification and report submitted to comply with 40 CFR 63 Subpart JJJJJ, to include all documentation supporting any Initial Notification or Notification of Compliance Status submitted;
  - ⇒ The following records related to startup, shutdown, and malfunction: 63.6(e)(3)iii thru v
  - ⇒ Records of performance tests as required by 63.10(b)(2)(viii);
  - ⇒ For each deviation of an operating limit parameter value, the date, time, and duration of the deviation, a brief explanation of the cause of the deviation, and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction;
  - ⇒ Records of production rates on a fired product basis;  
*This is also required by the 8/16/2004 NSR permit.*
  - ⇒ Records of maintenance and inspections performed on the scrubber ES-4-SCRB.
  - ⇒ Current copies of the SSMP and the OM&M plan, including any revisions, with records documenting performance.
  - ⇒ These records must be kept for 5 years.  
(9 VAC 5-60-100, 40 CFR 63.8490, 40 CFR 63.8495)

## Testing

The initial performance tests for Plant #4 have been performed and are listed in the obsolete conditions page under the facility wide conditions heading.

### 40 CFR 63 Subpart JJJJJ

The following testing requirements originate in 40 CFR 63 Subpart JJJJJ:

- Initial startup for Plant #4 shall mean the time at which the kiln ES-4-K first reaches a level of

production that is equal to 75 percent of the kiln design capacity or 12 months after the kiln begins firing, whichever is earlier.

(9 VAC 5-60-100, 40 CFR 63.8515)

*This condition is already noted in the 8/16/2004NSR permit.*

- Revision of the inspection and maintenance procedures of the OM&M plan does not require new performance tests.  
(9 VAC 5-60-100, 40 CFR 63.8425(d))
- Revision of the operating limits in the OM&M plan requires a new performance test. The permittee shall meet the following requirements:
  - ⇒ Must submit a notification of the performance test to the Director, Piedmont Regional Office
  - ⇒ After completion of the tests to demonstrate compliance with the emission limits can be achieved at the revised operating limit parameter value, the permittee shall submit the performance test results and the revised operating limits as part of the Notification of Compliance Status.  
(9 VAC 5-60-100, 40 CFR 63.8425(c), 40 CFR 63.8440(b))
- After the initial demonstration, performance tests shall be performed every 5 years.  
(9 VAC 5-60-100, 40 CFR 63.8440 (a))
- Prior to performance testing, the permittee shall install and calibrate all monitoring equipment.  
(9 VAC 5-60-100, 40 CFR 63.8440(b))
- Performance testing shall be conducted while operating at the maximum production level.  
(9 VAC 5-60-100, 40 CFR 63.8445(d))
- Testing shall not be conducted during periods of startup, shutdown, or malfunction.  
(9 VAC 5-60-100, 40 CFR 63.8445(e))
- Each test shall consist of 3 runs, and each run must last at least an hour.  
(9 VAC 5-60-100, 40 CFR 63.8445(f))
- Must use data from tests and the following equations to determine compliance:
  - ⇒ For production based emission limits, use  $MP=ER/P$  where:
    - MP = Mass per unit of production, lbs of pollutant per ton of fired product
    - ER = Mass emission rate of pollutant during each performance test lbs per hour
    - P = Production rate during each performance test run, tons of fired product per hour
  - ⇒ For percent reduction emission limits, use  $PR=(ER_i - ER_o)/ER_i$  where:
    - PR = Percent reduction, percent
    - $ER_i$  = mass emission rate of specific HAP entering ES-4-SCRB, lbs per hour
    - $ER_o$  = mass emission rate of specific HAP exiting ES-4-SCRB, lbs per hour  
(9 VAC 5-60-100, 40 CFR 63.8445(g))
- For Plant #4, the permittee must perform the following tests on the inlet and exhaust of the scrubber ES-4-SCRB:

Method	Determination	Citations
40 CFR 60 Appendix A, Methods 1 through 4 or alternative test methods	Site locations, velocities, volumetric flow rates, gas molecular weight, and moisture content	40 CFR 63 Subpart JJJJJ Table 3, #1 a through d
40 CFR 60, Appendix A, Method 26 or 26A or 40 CFR 63, Appendix A, Method 320	HF and HCl emissions	40 CFR 63 Subpart JJJJJ Table 3, #1 e
40 CFR 60 Appendix A, Method 5	PM	40 CFR 63 Subpart JJJJJ Table 3, #1 f

- For Plant #4, the permittee must determine the production rate during each test run, include production data collected during the performance tests in the test report, and must record the production rate on a fired product basis of the kiln for each of the three test runs.  
(9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ, Table 3, #2)
- For Plant #4, the permittee must:
  - ⇒ Document the source and grade of limestone used,
  - ⇒ Establish the operating limit for the lime feeder setting,
  - ⇒ Keep records of limestone purchased,
  - ⇒ Record data from the lime feeder during the performance test, and
  - ⇒ Ensure that the lime in the feed hopper or silo to the scrubber is free flowing at all times during the performance test.
  - ⇒ Record the feeder setting for the three test runs;
  - ⇒ If the feed rate setting varies during the three test runs, the permittee must determine and record the average feed rate from the three test runs.
 (9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ Table 3, #4)

## Reporting

### 40 CFR 63 Subpart JJJJJ

The following notification and reporting requirements originate from the MACT:

- The permittee must report each instance in which Plant #4 did not meet each emission limit and each operating limit, including periods of startup, shutdown, malfunction, and routine control device maintenance. These instances are deviations from the emission limitations in 40 CFR 63 Subpart JJJJJ.  
(9 VAC 5-60-100, 40 CFR 63.8470(c))
- The permittee shall submit a Notification of Compliance Status, including performance test results, before the close of business on the 60<sup>th</sup> calendar day following the completion of the performance test. The Notification of Compliance Status shall also contain the operating limit parameter values established for ES-4-SCRB with supporting documentation and a description of the procedure used to establish the values.  
(9 VAC 5-60-100, 40 CFR 63.8480(e), 40 CFR 63.10(d)(2))
- Semiannually the permittee shall submit a Compliance Report:
  - ⇒ The first compliance report must cover the period beginning with startup and ending on June 30 or



December 31, and lasting at least 6 months, but less than 12 months.

- ⇒ The first compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending June 30 and December 31, respectively.
  - ⇒ Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - ⇒ Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.
- (9 VAC 5-60-100, 40 CFR 63.8485(b)(1))

*It should be noted that the compliance reporting requirement in the general provisions will be modified to ensure that it matches these requirements.*

- The semiannual compliance reports shall contain the following information:
  - ⇒ Company name and address;
  - ⇒ Statement by a responsible official with that official's name, title, and signature, certifying that, based on the information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete;
  - ⇒ Date of report and beginning and ending dates of the reporting period;
  - ⇒ Information in 63.10(d)(5)(i)
  - ⇒ A description of control device maintenance performed while ES-4-SCRB was offline and the kiln ES-4-K was running, including the information below:
    - The date and time when the control device was shutdown and restarted;
    - Identification of the kiln that was operating and the number of hours that the kiln operated while the control device was offline;
  - ⇒ If there are no deviations from any emission limitations or operating limits, the compliance report shall contain a statement that there were no deviations from the emission limitations during the reporting period;
  - ⇒ If there were no periods during which the CMS was out-of-control as specified in the OM&M plan, the compliance report shall contain a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(9 VAC 5-60-100, 40 CFR 63.8485(c), 40 CFR 63.10(d)(5)(i), 40 CFR 63 Subpart JJJJJ Table 6 #1a)
- For each deviation from an emission limit or operating limit occurring at Plant #4, the permittee must include the following information in the compliance report. This includes periods of startup, shutdown, and malfunction.
  - ⇒ The total operating time of ES-4-K during the reporting period;
  - ⇒ The date and time that each malfunction started and stopped;
  - ⇒ The date and time that each CMS was inoperative, except for zero(low-level) and high-level checks;
  - ⇒ The date, time, and duration that each CMS was out-of-control including the pertinent information in the OM&M plan;
  - ⇒ The date and time that each deviation started and stopped and whether each deviation occurred during a period of startup, shutdown, malfunction, or during another period.
  - ⇒ A description of corrective action taken;
  - ⇒ A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  - ⇒ A breakdown of the total duration of the deviations during the reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

- ⇒ A summary of the total duration of the CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period;
- ⇒ A brief description of the process units;
- ⇒ A brief description of the CMS;
- ⇒ The date of the latest CMS certification or audit;
- ⇒ A description of any changes in CMS, processes, or control equipment since the last reporting period.  
(9 VAC 5-60-100, 40 CFR 63.8485(e), 40 CFR 63 Subpart JJJJJ Table 6, #1.b. and c.)
- The permittee shall submit by fax or telephone within 2 working days an immediate startup, shutdown, and malfunction report if actions during a startup, shutdown, or malfunction are not consistent with the SSMP. The report must contain the following information:
  - ⇒ Name, title, and signature of the permittee or other responsible official who is certifying its accuracy;
  - ⇒ Explanation of the circumstances of the event;
  - ⇒ Reasons for not following the SSM plan;
  - ⇒ Description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred;  
(9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ Table 6 #2.a, 40 CFR 63.10(d)(5)(ii))
- The permittee shall submit by letter within 7 working days after the end of the event, unless other arrangements have been made with the Director, Piedmont Region, a startup, shutdown, and malfunction report if actions during a startup, shutdown, or malfunction are not consistent with the SSMP. The letter must contain the following information:
  - ⇒ Name, title, and signature of the permittee or other responsible official who is certifying its accuracy;
  - ⇒ Explanation of the circumstances of the event;
  - ⇒ Reasons for not following the SSM plan;
  - ⇒ Description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred;  
(9 VAC 5-60-100, 40 CFR 63 Subpart JJJJJ Table 6 #2.b, 40 CFR 63.10(d)(5)(ii))

## **FACILITY WIDE APPLICABLE REQUIREMENTS**

### **Limitations**

Limitations from the NSR permit dated 8/16/2004:

- **Fugitive Dust Emission Controls** - Fugitive emission controls for Plant #3 and Plant #4 shall include the following, or equivalent, as a minimum:
  - a. Dust from material handling and load-outs shall be controlled as specified in this permit.
  - b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.
  - c. Dust from haul roads and traffic areas shall be controlled by the application of asphalt, water, suitable chemicals, or equivalent methods approved by the DEQ.

d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.  
(9 VAC 5-50-260, 9 VAC 5-50-20, 9 VAC 5-50-90, Condition 15 of 8/16/2004 NSR permit)

- **Requirements by Reference** – Except where the NSR permit dated 8/16/2004 is more restrictive than the applicable requirement, the permittee shall operate the designated equipment listed in Condition 2 of the 8/16/2004 NSR permit in compliance with 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants and 40 CFR 63, Subpart JJJJJ, National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing.  
(9 VAC 5-50-400, 9 AC 50-50-410, 9 VAC 5-60-100, Condition 45 of the 8/16/2004 NSR permit)

### Record Keeping

Record keeping requirements from the 8/16/2004 NSR permit:

- **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
  - a. Annual production of fired brick from Plant #3, calculated monthly as the sum of each consecutive 12 month period.
  - b. Annual production of fired brick from Plant #4, calculated monthly as the sum of each consecutive 12 month period.
  - c. Operation and control device monitoring records for the fabric filter dust collection systems controlling the Plant #3 grinding room and the Plant #3 texturing and coating equipment.
  - d. Operation and control device monitoring records for the Plant #4 baghouses designated ES-4-GR and ES-4-MR, including records showing the periods when the baghouse ES-4-MR was not in operation while the brick making room was running operations other than dry coating operations.
  - e. Operation and control device monitoring records for the Plant #4 dry hydrated lime injection baghouse system designated ES-4-SCRB as described in Condition 20 of the 8/16/2004 NSR permit.
  - f. Test data showing raw material fluoride and sulfur content and material balance information as described in Conditions 59 and 60 of the 8/16/2004 NSR permit.
  - g. Results of all stack tests, visible emission evaluations and performance evaluations.
  - h. Scheduled and unscheduled maintenance, and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-50-50, Condition 46 of the 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ Table 5 #2)

Record keeping requirements from Subpart JJJJJ are included in Plant #4's applicable requirements listing above.

## Testing

- **Stack Test** - Initial performance tests shall be conducted for particulate matter,  $PM_{10}$ , carbon monoxide, sulfur dioxide, hydrogen fluoride, and hydrogen chloride from the exhaust of the dry hydrated lime injection baghouse (ES-4-SCRB) controlling the Plant #4 tunnel kiln (ES-4-K) to determine compliance with the emission limits and control efficiency requirements contained in Conditions 35 and 8 of the 8/16/2004 NSR permit. The tests shall be performed and demonstrate compliance no later than 180 days after initial start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. During the test runs the permittee shall record the lime feeder setting. The test results shall contain records of this parameter. The permittee shall submit a test protocol at least 60 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, Condition 54 of the 8/16/2004 NSR permit, 40 CFR 63 Subpart JJJJJ Table 4 #2))
- **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 F, Condition 47 of the 8/16/2004 NSR permit)

## Obsolete Conditions

The following conditions are obsolete since the facility has already completed the requirements.

1. **Initial Notifications** - The permittee shall furnish written notification to the Director, Piedmont Region:
  - a. The actual date on which construction of Plant #4 commenced within 30 days after such date.
  - b. The anticipated start-up date of Plant #4 postmarked not more than 60 days nor less than 30 days prior to such date.
  - c. The actual start-up date of Plant #4 within 15 days after such date.
  - d. The anticipated date of performance tests of Plant #4 postmarked at least 30 days prior to such date.

Copies of the written notification referenced in items a through c above are to be sent to:  
Associate Director  
Office of Air Enforcement (3AP10)

U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029  
(9 VAC 5-50-50, Condition 61 of the 8/16/2004 NSR permit)

2. The following Initial Performance Testing requirements originate in the 8/16/2004 NSR permit:
  - a. **Stack Test** - Initial performance tests shall be conducted for particulate matter and PM<sub>10</sub> from the exhaust of the baghouse designated ES-4-GR to determine compliance with the emission limits and control efficiency requirements contained in Conditions 31 and 10 of the 8/16/2004 NSR permit. The tests shall be performed and shall demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Region. During each test run, the permittee shall note the differential pressure of the baghouse and include this information in the testing report. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410, Condition 49 of the 8/16/2004 NSR permit, 40 CFR 60.675 (b))
  - b. **Visible Emissions Evaluation** - Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted by the permittee on the exhaust of the baghouse designated ES-4-GR. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and shall demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Piedmont Region shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410, Condition 50 of the 8/16/2004 NSR permit, 40 CFR 675(b))
  - c. **Definition of Initial Start-Up** – For applicability to the testing required in Conditions 52, 53, and 54 of the 8/16/2004 NSR permit, initial start-up shall mean the time at which Plant #4 tunnel Kiln (ES-4-K) first reaches a level of production that is equal to 75% of the kiln design capacity or 12 months after the unit begins firing brick, whichever is earlier.  
(9 VAC 170-160, 9 VAC 5-60-100, Condition 51 of the 8/16/2004 NSR permit, 40 CFR 63.8515)

- d. **Stack Test** - Initial performance tests shall be conducted for particulate matter and PM<sub>10</sub> from the exhaust of the baghouse designated ES-4-MR to determine compliance with the emission limitations contained in Condition 33 of the 8/16/2004 NSR permit. The tests shall be performed and shall demonstrate compliance no later than 180 days after initial start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Region. During each test run, the permittee shall note the differential pressure of the baghouse and include this information in the testing report. The permittee shall submit a test protocol at least 60 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, Condition 52 of the 8/16/2004 NSR permit)
- e. **Visible Emissions Evaluation** - Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted by the permittee on the exhaust of the baghouse designated ES-4-MR. Each test shall consist of ten sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 60 days prior to testing. The evaluation shall be performed and demonstrate compliance no later than 180 days after initial start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Piedmont Region shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test results shall be submitted to the Director, Piedmont within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, Condition 53 of the 8/16/2004 NSR permit)
- f. **Visible Emissions Evaluation** - Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on the equipment listed in Condition 40 of the 8/16/2004 NSR permit. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Two copies of the test result shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410, Condition 55 of the 8/16/2004 NSR permit, 40 CFR 60.675(b))
- g. **Visible Emissions Evaluation**- Visible Emission Evaluations required in Condition 55 on the equipment listed in Condition 40 of the 8/16/2004 NSR permit may be reduced to ten (10) sets of twenty-four (24) consecutive observations (at fifteen (15) second intervals) to yield a six (6) minute average if:
1. There are no individual readings greater than ten (10) percent opacity for

- each piece of equipment, and
2. There are no more than three (3) readings of ten (10) percent opacity for the one (1) hour period for each piece of equipment.

(9 VAC 5-50-410, Condition 56 of the 8/16/2004 NSR permit, 40 CFR 60.675 (c)(3))

- h. **Visible Emissions Evaluation** - Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on the Plant #4 roll crusher, ES-4-CR1. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Two copies of the test result shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30, 9 VAC 5-80-1200, and 9 VAC 5-50-410, Condition 57 of the 8/16/2004 NSR permit, 40 CFR 60.675(b))

- i. **Visible Emissions Evaluation**- Visible Emission Evaluations required in Condition 57 of the 8/16/2004 NSR permit on the Plant #4 roll crusher, ES-4-CR1, may be reduced to ten (10) sets of twenty-four (24) consecutive observations (at fifteen (15) second intervals) to yield a six (6) minute average if:

1. There are no individual readings greater than fifteen (15) percent opacity for each piece of equipment, and
2. There are no more than three (3) readings of fifteen (15) percent opacity for the one (1) hour period for each piece of equipment.

(9 VAC 5-50-410, Condition 58 of the 8/16/2004 NSR permit, 40 CFR 60.675(c)(4))

Many of the MACT conditions for initial notification concerning Plant #4 (ES-4-K) have also been performed. These include:

- The permittee shall submit an Initial Notification not later than 120 calendar days after startup.  
(9 VAC 5-60-100, 40 CFR 63.8480(c))
- The permittee shall submit a Notification of Intent to Conduct a Performance Test at least 60 calendar days prior to the scheduled date.  
(9 VAC 5-60-100, 40 CFR 63.8480(d), 40 CFR 63.7(b)(1))

### **Streamlined Requirements**

#### Plants #3 & #4 Subpart OOO:

Plants #3 and #4 have a number of pieces of equipment that are subject to standards under 40 CFR 60 Subpart OOO. All requirements in the NSR permit dated 8/16/2004 are at least as stringent as those

required by Subpart OOO. Therefore, the NSR permit conditions will be used for the Subpart OOO applicabilities. The appropriate paragraphs of Subpart OOO will be referenced behind each condition. Where the NSR permit makes no mention of Subpart OOO requirements, as noted in the limitations above, these requirements will be included in the Title V permit.

## PERIODIC MONITORING REQUIREMENTS AND CAM REQUIREMENTS

### Compliance Assurance Monitoring (CAM)

CAM requirements apply to units that use a control device and that would have a potential to emit of more than 100 tpy of criteria pollutants prior to control. CAM also does not apply to standards that have been developed after 11/15/1990. The control devices at this facility, baghouses controlling various particulate sources, bin vents controlling silos, and the dry lime injection baghouse controlling the Kiln #4, do not meet the requirements for the application of CAM. The baghouses and bin vents controlling various particulate sources do not have a pre control PTE of more than 100 tpy of PM10. The dry lime injection baghouse is regulated by 40 CFR 63 Subpart JJJJJ for PM and for HAPS and therefore is not subject to CAM for these pollutants. The NSR permit dated 8/16/2004 requires a 30% SO2 removal efficiency by this control device; however, the pre-control PTE is less than 100 tpy of SO2. Based on these facts, no CAM determination have been included in this Title V permit.

### Periodic Monitoring

It should be noted that the following table does not contain periodic monitoring for any of the requirements originating in 40 CFR 63 Subpart JJJJJ. Since this MACT standard was promulgated after 1990, it is assumed that the monitoring, record keeping, and recording required by the standard itself are sufficient to demonstrate compliance.

Conditions for monitoring, testing, record keeping and reporting have been added to the Title V permit to satisfy the requirements of the table below such that periodic monitoring may provide sufficient assurance of compliance with limitations.

Periodic Monitoring Requirements for Brick and Tile Corporation of Lawrenceville 30872				
Limitation	Parameter	Monitoring	Record Keeping	Reporting
Plant #3 tunnel kiln (ES-3-K)				
PM/PM10: 21.3 lbs/hr 79.2 tpy SO2 9.9 lbs/hr 36.9 tpy NO2 5.2 lbs/hr 19.3 tpy CO 17.8 lbs/hr 66.0 tpy VOC 0.4 lbs/hr 1.3 tpy	*kiln rating/capacity;  *annual brick produced  *stack test data once every 5 years.  *S content of raw materials  *Visible emissions	*S content of raw material;  *requirement for procedures to be written down  *Visible emission checks monthly	*rating/capacity.  *emission factors  *emission calculations  *training certifications  *test data  *Results of monthly visible emission checks	Quarterly, reporting changes in parameters for calculations  See Emission Limitation Demonstration.  Stack test report.
Plant #3 tunnel kiln dryer (ES-3-BD)				



Periodic Monitoring Requirements for Brick and Tile Corporation of Lawrenceville 30872				
Limitation	Parameter	Monitoring	Record Keeping	Reporting
PM/PM10: 2.8 lbs/hr 10.3 tpy NO2 1.5 lbs/hr 5.4 tpy CO 4.6 lbs/hr 17.1 tpy VOC 0.5 lbs/hr 1.7 tpy	*dryer rating/capacity;  *annual brick production  *good operating practices  *Visible emissions	*training of operators;  *requirement for procedures to be written down  *Visible emission checks monthly	*kiln rating/capacity.  *emission factors  *emission calculations  *training certifications  *Results of monthly visible emission checks.	Quarterly, reporting changes in parameters for calculations  See Emission Limitation Demonstration.
#3 grinding room baghouse (ES-3-GR-BH)				
TSP & PM10 .02 gr/dscft 5.8 lbs/hr 8.6 tpy  7% opacity	pressure drop across baghouse  visual checks to determine if visible emissions are present	Check pressure drop once per shift to ensure it is within manufacturer's recommendations  Check visible emissions 1/month while operating	Record pressure drop once per shift  visible emission check records	Record instances where pressure drop exceeds manufacturer's recommendations.  Report instances where emissions checks show opacity problems.  See Emission Limitation Demonstration
#3 making room baghouse room (ES-3-MR-BH)				
TSP & PM10 0.01 gr/dscft 1.6 lbs/hr 1.6 tpy  5% opacity  99% control efficiency	pressure drop across baghouse  visual checks to determine if visible emissions are present	Check pressure drop once per shift to ensure it is within manufacturer's recommendations  Check visible emissions 1/month while operating	Record pressure drop once per shift  visible emission check records	Record instances where pressure drop exceeds manufacturer's recommendations.  Report instances where emissions checks show opacity problems.  See Emission Limitation Demonstration
Plant #3 NSPS Subpart OOO requirements				
ES-3-CR1 Roll Crusher 15% opacity  ES-3-C1A conveyor 10% opacity  ES-3-C2 conveyor 10% opacity  ES-3-C11 through C13 conveyors 10% opacity	visual checks to determine if visible emissions are present	Check visible emissions 1/month while operating	visible emission check records	Report instances where emissions checks show opacity problems
Plant #3 total emissions				

Periodic Monitoring Requirements for Brick and Tile Corporation of Lawrenceville 30872				
Limitation	Parameter	Monitoring	Record Keeping	Reporting
PM/PM10  31.4 lbs/hr 99.7 tpy SO2 9.9 lbs/hr 36.9 tpy NO2 6.6 lbs/hr 24.6 tpy CO 22.4 lbs/hr 83.1 tpy VOC 0.8 lbs/hr 3.0 tpy	summation of Plant #3 requirements as above	summation of Plant #3 requirements as above	summation of Plant #3 requirements as above	Report semiannually upon emissions status.
Plant #4 grinding room baghouse (ES-4-GR-BH)				
PM/PM10  99% control efficiency 0.022 gr/dscft 5.0 lbs/hr 22.1 tpy  7% opacity	pressure drop across baghouse  visual checks to determine if visible emissions are present	Check pressure drop once per shift to ensure it is within manufacturer's recommendations  Check visible emissions 1/month while operating	Record pressure drop once per shift  visible emission check records	Record instances where pressure drop exceeds manufacturer's recommendations.  Report instances where emissions checks show opacity problems.  See emission limitation demonstration.
Plant #4 making room baghouse (ES-4-MR-BH)				
PM/PM10  99% control efficiency 0.01 gr/dscf 1.2 lbs/hr 5.3 tpy  5% opacity	pressure drop across baghouse  visual checks to determine if visible emissions are present	Check pressure drop once per shift to ensure it is within manufacturer's recommendations  Check visible emissions 1/month while operating	Record pressure drop once per shift  visible emission check records	Record instances where pressure drop exceeds manufacturer's recommendations.  Report instances where emissions checks show opacity problems.  See emission limitation demonstration
Plant #4 truck dumping and crushing				
PM/PM10  3.8 lbs/hr 16.6 tpy	annual production of brick;  emission factors	production	production, emission factors, and formulas	semiannually, when factors change or production is too high.  See emission limitation demonstration.
Plant #4 ground material storage				

Periodic Monitoring Requirements for Brick and Tile Corporation of Lawrenceville 30872				
Limitation	Parameter	Monitoring	Record Keeping	Reporting
PM/PM10  2.7 lbs/hr 11.8 tpy	annual production of brick;  emission factors	production	production, emission factors, and formulas	semiannually, when factors change or production is too high.  See emission limitation demonstration
Plant #4 tunnel kiln dryer (ES-4-BD)				
PM/PM10: 2.8 lbs/hr 12.1 tpy NO2 1.5 lbs/hr 6.4 tpy CO 4.6 lbs/hr 20.1 tpy VOC 0.4 lbs/hr 1.97 tpy	*dryer rating/capacity;  *annual brick production  *good operating practices	*training of operators;  *requirement for procedures to be written down	*kiln rating/capacity.  *emission factors  *emission calculations  *training certifications	Quarterly, reporting changes in parameters for calculations  See Emission Limitation Demonstration.
Plant #4 tunnel kiln scrubber(ES-4-SCRB)				
SO2 6.9 lbs/hr 30.4 tpy 30% ce NO2 5.2 lbs/hr 22.5 tpy CO 17.8 lbs/hr 77.8 tpy VOC 0.4 lbs/hr 1.6 tpy	*kiln rating/capacity; *annual brick produced *stack test data once every 5 years. *S content of raw materials *scrubber monitoring as for HF/HCL in MACT	*S content of raw material;  *requirement for procedures to be written down MACT monitoring (acid gases)	*rating/capacity. *emission factors *emission calculations *training certifications *test data *parametric monitoring from MACT	Quarterly, reporting changes in parameters for calculations  See Emission Limitation Demonstration.  Stack test report.
Plant #4 NSPS Subpart OOO requirements				
ES-4-CR1 Roll Crusher 15% opacity  ES-4-C1 conveyor ES-4-C2 conveyor ES-4-C3 conveyor ES-4-C5 conveyors ES-4-C6SR conveyor ES-4-C16B conveyor ES-4-C16C conveyor ES-4-C19 conveyor ES-4-C18SR conveyor ES-4-C18W conveyor ES-4-C18E conveyor 10% opacity	visual checks to determine if visible emissions are present	Check visible emissions 1/month while operating	visible emission check records	Report instances where emissions checks show opacity problems
Plant #4 sand storage silo (ES-4-SS) and Plant #4 lime storage silo (ES-4-LS)				
5% opacity	visible emissions	monthly sighting and evaluation	records of monthly sightings	semiannually, times when silos exhibited visible emissions
Plant #4 total emissions				

Periodic Monitoring Requirements for Brick and Tile Corporation of Lawrenceville 30872				
Limitation	Parameter	Monitoring	Record Keeping	Reporting
PM/PM10 17.3 lbs/hr 75.7 tpy SO2 6.9 lbs/hr 30.4 tpy NO2 6.6 lbs/hr 29.0 tpy CO 22.3 lbs/hr 97.9 tpy VOC 0.8 lbs/hr 3.5 tpy	summation of Plant #4 requirements as above	summation of Plant #4 requirements as above	summation of Plant #4 requirements as above	Report semiannually upon emissions status.

**Emission Limitation Demonstration:** The purpose of this demonstration is to show that if the facility meets the standards prescribed in the permit for the following equipment and does not exceed the maximum rated capacities for each piece of equipment, the facility will remain in compliance with their lbs/hr, tons/year, and tons/year/facility emissions limits. See the spreadsheet in Attachment 2.

Kiln #3 and Kiln #4:

Given: Kiln #3 rated at 14.8 tons fired brick/hr  
Maximum throughput limit of 110,000 tpy fired brick  
AP-42 emission factors from Table 11.3-1, 8/97 AP-42 for all pollutants except VOC & PM  
AP-42 emission factors from Table 11.3-5, 8/97 AP-42 for VOC  
Test data from July 18, 2000 stack test used for PM & PM 10.

Listed below are the formulas which apply to the following pollutants:

$$\text{lbs/hr} = (\text{lbs/ton fired brick})(\text{rating of dryer})$$

$$\text{tpy} = (\text{lbs/ton fired brick})(\text{maximum throughput})(1 \text{ ton}/2000 \text{ lbs})$$

NOx:  $0.35 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 5.2 \text{ lbs/hr}$   
 $0.35 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 19.3 \text{ tons/yr}$

TSP/PM10:  $1.44 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 21.3 \text{ lbs/hr}$   
 $1.44 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 79.2 \text{ tpy}$

CO:  $1.2 \text{ lbs/ton brick}(14.8 \text{ tons/hr}) = 17.8 \text{ lbs/hr}$   
 $1.2 \text{ lbs/ton brick}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 66 \text{ tpy}$

VOC:  $0.024 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 0.4 \text{ lbs/hr}$   
 $0.024 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 1.3 \text{ tpy}$

The attached spreadsheet details these calculations and also provides similar calculations for #4 Kiln. It should be noted that for #4 kiln, no emission limitation demonstration is needed for particulate matter since the particulate matter standard of 0.12 lbs/ton is a MACT standard, which provides sufficient monitoring requirements for periodic monitoring purposes.

Kiln Dryer #3 and Kiln Dryer #4:

Given: Kiln #3 dryer with a 9 mmbtu/hr gas/propane burner, rated at 14.8 tons fired brick/hr  
Maximum throughput limit of 110,000 tpy fired brick  
AP-42 emission factors from Table 11.3-1, 8/97 AP-42 for all pollutants except VOC  
AP-42 emission factors from Table 11.3-5, 8/97 AP-42 for VOC

Listed below are the formulas which apply to the following pollutants:

$$\begin{aligned}\text{lbs/hr} &= (\text{lbs/ton fired brick})(\text{rating of dryer}) \\ \text{tpy} &= (\text{lbs/ton fired brick})(\text{maximum throughput})(1 \text{ ton}/2000 \text{ lbs})\end{aligned}$$

NOx:  $0.098 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 1.5 \text{ lbs/hr}$   
 $0.098 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 5.4 \text{ tons/yr}$

TSP/PM<sub>10</sub>:  $0.187 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 2.8 \text{ lbs/hr}$   
 $0.187 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 10.3 \text{ tpy}$

CO:  $0.31 \text{ lbs/ton brick}(14.8 \text{ tons/hr}) = 4.6 \text{ lbs/hr}$   
 $0.31 \text{ lbs/ton brick}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 17.1 \text{ tpy}$

VOC:  $0.03 \text{ lbs/ton}(14.8 \text{ tons/hr}) = 0.4 \text{ lbs/hr}$   
 $0.03 \text{ lbs/ton}(110000 \text{ tons/yr})(1 \text{ ton}/2000 \text{ lbs}) = 1.7 \text{ tpy}$

The attached spreadsheet shows that Kiln #4 dryer will also meet its limitations if the AP-42 emission factors are used and if they remain beneath their throughput limitations.

#3 grinding room baghouse

Given: Maximum air flow of baghouse = 33600 acfm  
Permit limits facility to 110000 tons annually.  
Loss on ignition of 5% by weight.  
30% recycle to the grinding room.  
90 tons/hr grinder maximum capacity.  
Limit of 0.02 gr/dscft (manufacturer's guarantee)

TSP/PM<sub>10</sub>:

Tons of material ground annually:  $110000 \text{ tons fired brick/year} \times 1.3 / (1 - .05) = 150526 \text{ tons ground annually}$

Hours of operation annually:  $150526 \text{ tons ground} / 90 \text{ tons/hr} = 1672 \text{ hours/year} < 3000 \text{ hrs/yr}$  (assumption used for annual calculation.)

$33600 \text{ acfm} \times 60 \text{ min/hr} \times 0.02 \text{ gr/dscft} \times 1 \text{ lb}/7000 \text{ gr} = 5.78 \text{ lbs/hr}$   
 $5.78 \text{ lbs/hr} \times 3000 \text{ hrs/year} \times 1 \text{ ton}/2000 \text{ lbs} = 8.64 \text{ tons/yr}$

Similar calculations are shown in the attached spreadsheet for #3 making room baghouse (ES-3-MR-BH), #4 grinding room baghouse (ES-4-GR-BH), #4 making room baghouse (ES-4-MR-BH), #4 dumping and crushing, and #4 ground material storage.

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that applies to all Federal Operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

#### **B. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2001".

#### **F. Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title 5 facilities. Section 9 VAC 5-80-250 is from the Title 5 regulations. Title 5 facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

#### **J. Permit Modification**

This general condition cites the sections that follow:

9 VAC 5-80-50 Applicability, Federal Operating Permit For Stationary Sources  
9 VAC 5-80-190 Changes to Permits.  
9 VAC 5-80-260 Enforcement.  
9 VAC 5-80-1100 Applicability, Permits For New and Modified Stationary Sources  
9 VAC 5-80-1790 Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas  
9 VAC 5-80-2000 Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

#### **U. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

#### **Y. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also

holds authority to enforce 40 CFR 61 subpart M, National Emission Standards for Asbestos.

#### **STATE ONLY APPLICABLE REQUIREMENTS**

There are not any state only requirements in this Title V permit.

#### **FUTURE APPLICABLE REQUIREMENTS**

As stated above, Plant #3 will be subject to 40 CFR 63 Subpart JJJJJ in 2006. At that time, Plant #3 must either take a federally enforceable limitation to 87,600 tons of fired brick per year or must install control equipment sufficient to allow it to meet the standards in 40 CFR 63 Subpart JJJJJ for large, existing kilns.

#### **INAPPLICABLE REQUIREMENTS**

The permittee identified no specific inapplicable requirements in the application.

#### **COMPLIANCE PLAN**

No compliance plan is needed for this facility.

#### **INSIGNIFICANT EMISSION UNITS**

No units are considered insignificant at this facility due to the new source review permitting status for Plants #3 and Plants #4. Plant #3 was permitted as a synthetic minor source under minor new source review permitting. The pollutant of concern was PM/PM10. The current NSR permit limits Plant #3 to 99.7 tpy of PM/PM10. This is appropriate since no public notice or public hearing, as required by the minor new source review regulations for "state major" facilities, was held. Since all units at Plant #3 emit some PM10, no unit may be considered insignificant since its contribution to the overall emissions cap must be evaluated for compliance purposes.

Plant #4 was also permitted under the minor new source review regulations, prior to the promulgation of the version YY regulations (9 VAC 5-80 Article 6). Therefore, since the currently permitted and operating facility was a synthetic minor facility (<100 tpy of any criteria pollutant), an increase for the new facility of up to 99 tpy could be allowed for criteria pollutants before "state major" requirements for public notice and public hearing were triggered. It should be noted that version YY changed the public notice/public hearing trigger to a past actual to future potential test. Kiln #4 was built with a dry lime injection baghouse and the PM10 limitation for the entire Plant #4 is set at 75.5 tpy. For Plant #4, the pollutant of most concern is carbon monoxide, which was permitted at 97.9 tpy. However, the PM10 limitation is based on after control emission factors and therefore all PM10 sources of emissions must be considered for the cap.

Therefore, all emission units are listed as significant emissions units for this permit.

#### **CONFIDENTIAL INFORMATION**

This permit contains no confidential information, nor does the application for the permit.

#### **PUBLIC PARTICIPATION**

The proposed permit was placed on public notice in the **Richmond Times Dispatch** on **June 13, 2005** and ended on July 12, 2005. The Region 3 EPA forty-five day review period ended August 27, 2005.

Attachments:

- Attachment 1: 2003 Annual update
- Attachment 2: Emission limitation spreadsheets